

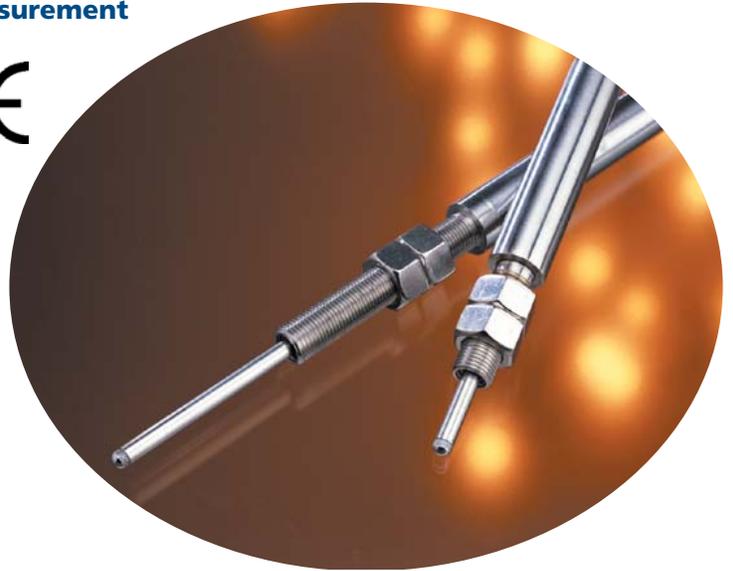
GCD-SE Series Precision Gage Heads

Spring-Loaded Design for 0.100 to 2.00 Range Measurement

DESCRIPTION

The **GCD-SE** is available in five unipolar measurement ranges, with standard strokes from 0 to 0.1 inch to 0 to 2.0 inches. Operating on a single ended 8.5 to 28.0 volt dc. input, and minimal current draw, the GCD-SE is ideally suited to portable measurement applications. Hermetically sealed, the GCD-SE is also well suited to in-process wet grinding and machining applications.

Internal regulation provides immunity from output sensitivity to input voltage fluctuation and ripple. Internal EMI, ESD and RFI protection, provide CE compliance when correctly installed. Incorporation of a new oscillator design provides exceptional output stability over a wide range of operating temperatures. Synchronous demodulation insures unsurpassed noise rejection.



FEATURES

- ◆ CE Compliant
- ◆ Heavy-duty, All-welded Construction
- ◆ Unipolar Ranges: 0.1" to 2.0"
- ◆ 8.5 to 28 VDC Operation
- ◆ Low Power Consumption
- ◆ May Be Battery Operated
- ◆ 0 to 5 and 1 to 6 VDC Outputs
- ◆ New Heavy Duty Front End
- ◆ Hermetically Sealed Design

OPTIONS

- ◆ Special Contact Tips
- ◆ Mating Connector
- ◆ Air Extend Spring Retract

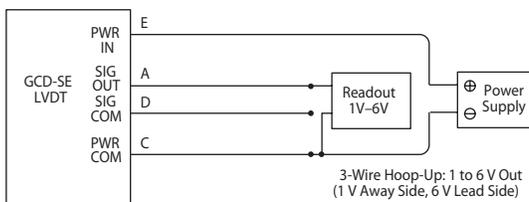
APPLICATIONS

- ◆ Roller Gap Control
- ◆ In-process Wet Grinding
- ◆ Hand Held Gages
- ◆ X-Y Positional Feedback

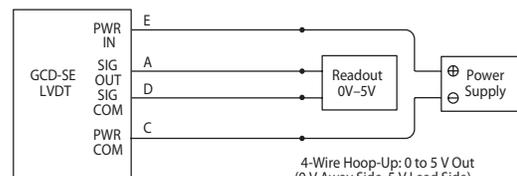
specifications

Input Voltage	8.5 to 28 VDC
Input Current	6 mA nominal
Line Regulation	0.2 mV/V (typical)
Operating Temperature	-13°F to 185°F
Range	(-25°C to 85°C)
Storage Temperature	-65°F to 250°F
Range	(-55°C to 125°C)
Output Voltage	0 to 5 VDC (4-wire); 1 to 6 VDC (3-wire)
Output Impedance	< 1Ω
Noise and Ripple	<10 mV Rms
Linearity	0.25% full range
Repeatability	0.000025 in (0.0006 mm)
Stability	0.1% full range
T/C of Scale Factor	0.025%/°F max (0.05%/°C max)
Shock Survival	250 g for 11 milliseconds
Vibration Tolerance	10 g up to 2 kHz
Housing Construction	TIG welded 400 series stainless steel
Termination	6-pin MS style hermitic connector

3-Wire Hook-Up



4-Wire Hook-Up



Note: SIG COM cannot be tied PWR COM or paralleled with other GCD-SE SIG COM

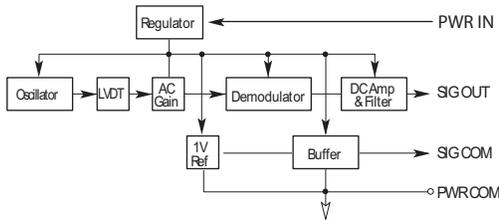
measurement
SPECIALTIES

GCD-SE Series Precision Gage Heads

GCD Specifications – DC-Operated Models

Model Number	GCD-SE-100	GCD-SE-250	GCD-SE-500	GCD-SE-1000	GCD-SE-2000
Gaging Range	0.100" (2.54mm)	0.250" (6.35mm)	0.500" (12.7mm)	1.000" (25.4mm)	2.000" (50.8mm)
Scale Factor	50	20	10	5	2.5
Pretravel (Nominal)	0.30" (7.6mm)	0.28" (7.1mm)	0.18" (4.5mm)	0.20" (5.08mm)	0.10" (2.5mm)
Overtravel	0.39" (9.4mm)	0.29" (7.4mm)	0.03" (0.8mm)	0.35" (8.9mm)	0.10" (2.5mm)
Dimensions					
A (± 0.01 "/0.25mm)	4.06" (103.1mm)	4.90" (124.5mm)	5.76" (146.3mm)	7.46" (189.5mm)	9.71" (246.6mm)
B (± 0.03 "/0.76mm)	6.48" (164.6mm)	7.30" (185.4mm)	8.16" (207.3mm)	12.93" (328.4mm)	15.16" (385.1mm)
C (± 0.02 "/0.50mm)	5.42" (137.7mm)	6.27" (159.3mm)	7.13" (181.1mm)	10.45" (265.4mm)	12.69" (322.3mm)

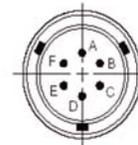
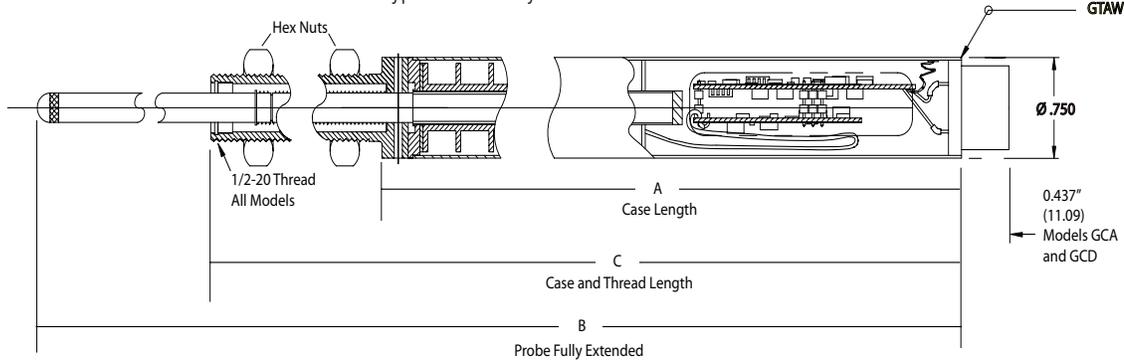
GCD-SE System Block Diagram



dimensions

in (mm)

Typical Cutaway View



Connector Mates with
PT06A-10-6S
(SR) Connector

A=0-5 VDC or 1-6 VDC
B=N/C
C=Power Common
D=Sig Common
E=8.5 to 28 VDC
F=N/C

ordering information

Specify the model name, followed by the desired Gaging Range suffix. For example: GCD-SE-100 is DC operated with a 0.100" range. Special contact tips are also available and can be ordered separately.

Model Number	Operation	Gaging Range	Description
GCD-SE	DC	100	0.100" (2.54 mm)
		250	0.250" (6.35 mm)
		500	0.50" (12.7 mm)
		1000	1.00" (25.4 mm)
		2000	2.00" (50.8 mm)